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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/751,102	01/05/2004	Ingo Ferber	Q-79218	1345
23373 7590 10/17/2007 SUGHRUE MION, PLLC 2100 PENNSYLVANIA AVENUE, N.W. SUITE 800 WASHINGTON, DC 20037				
			EXAMINER SELLMAN, CACHET I	
			ART UNIT 1792	PAPER NUMBER
			MAIL DATE 10/17/2007	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/751,102

Applicant(s)

FERBER ET AL.

Examiner

Cachet I. Sellman

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 July 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 15-26 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 15-26 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION***Response to Arguments***

1. Applicant's arguments filed 7/30/2007 have been fully considered but they are not persuasive. The applicant argues that Collin et al. does not teach a pressure regulating valve that is located directly at the glue assembly. As defined a pressure regulator is a valve that automatically cuts off the flow of a liquid or gas at a certain pressure, usually for the purpose of preventing damage to plumbing. As stated in the previous office action, valve 14 which is directly at the glue assembly (9) cuts on and off the glue pressure based on the substrate moving to a position where glue is desired- i.e. the valve 14 controls the glue to have a pressure in the nozzles when it is actuated to be open, and controls the glue to have zero pressure in the nozzle when it is closed therefore the valve 14 is a pressure control valve.

2. The applicant also argues that Collin et al. does not reach applying glue having variable thicknesses or shapes. However, in Collin et al. the glue is applied along the edge of a carton where there are long and short strips of glue being applied due to the shape of the substrate/carton receiving the glue. Collin et al. shows that the amount of glue must be adjusted in order to prevent excess glue from being applied in certain areas especially when the substrate has an irregular shape (see Fig. 2 and [0030]). Furthermore, as stated in the previous office action it would have been obvious to establish a program to modify and adjust the amount of glue being applied in shape, size or thickness in order to accurately apply the glue in the desired areas of a substrate.

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3. The applicant argues that it is not obvious to use compress air to regulate a valve, however, merely stating that it is novel to use compressed air is not sufficient to overcome the rejection.
4. For the reasons above the rejection of Collin et al. will be maintained.
5. The applicant argues that Estelle teaches controlling the pressure of the nozzle using a pump and not by using a valve. However, the valve 50 is a dispensing valve controls the amount of glue that is delivered to the nozzle. In combination with Heide which teaches that the valve is regulated by pressure and controls the amount or when the glue is delivered to the nozzle therefore it is taught that the nozzle would be regulated by pressure to open and close to allow the glue to be applied to the substrate.
6. For these reasons the rejection over Estelle et al. and Heide will be maintained.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

9. Claims 15—18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Collin et al. (US 2002/0022080 A1).

Collin et al. teaches a process for applying glue to successive objects such as blanks that are used for packs (abstract) that are conveyed in cycles [0030]. The process comprised the steps of applying glue to the blanks using a glue assembly (9) that is equipped with glue nozzles (16), which have closeable nozzle openings and are supplied with glue under glue pressure, which is regulated by the conveying speed of the packaging material (abstract). The glue is fed by a glue pump (12) through a glue line to a glue assembly (9) equipped with nozzles (16); the glue pressure is regulated by a pressure control valve (14) disposed in the glue line directly at the glue assembly. The valve 14 meets the limitation of a pressure control valve because it regulates the glue pressure in the region of the glue nozzles. The valve cuts on and off the glue pressure based on the substrate moving to a position where glue is desired – i.e., the valve 14 controls the glue to have a pressure in the nozzles when it is actuated to be open, and controls the glue to have zero pressure in the nozzle when it is closed. The control valve is connected via control lines to a common machine control unit (17) which has sensors which monitor the acceleration, deceleration, movements, and periods of standstill of the conveyor [0036] therefore the valve is regulated in accordance with the conveyor speed.

Collin et al. does not teach that the control programs for different glue shapes based on the type and/or size of the blanks or corresponding sections are stored in the machine control unit or that the programs are called up by a PC as required by claims

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15 and 16. However, it would have been obvious to one having ordinary skill in the art that a connection to a PC that is controlled by a plant engineer is needed in order to input variables (control programs) into the control systems such as the size and shapes of the substrates, the desired size and thickness of the deposited glue, the characteristics of the particular adhesive used, etc. in order to determine the desired control program for the control unit.

Collin et al. does not teach the specific type of valve used as required by **claim 17**. However, it is well known that some valve may be actuated by compressed air. It would have been obvious for a design engineer having ordinary skill in the art to have used a valve controlled by compressed air, and thus the control unit would control the compressed air via a control line, with the expectation of successful results since air actuated valves are known in the art.

Collin et al. does not teach that the different glue regions of the packaging material on one hand and arranged offset to the latter, having different layer thicknesses which are regulated by the pressure control valve according to the settings at the machine control unit as required by **claim 18**. However, Collin et al. teaches that the opening and closing of the valve is determined to guarantee application of patches having "a predetermined (requisite) quantity of adhesive", or mass of the spot [0037]. Therefore, Collin et al. teaches that the amount (thickness) of each adhesive patch is predetermined. It would have been obvious to one having ordinary skill in the art that the layer thicknesses of different regions/patches may be different.

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10. Claims 15-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Estelle et al. (US 6517891 B1) in view of Heide (US 201/0018818 A1).

Estelle et al. discloses a process that is used to deposit a fluid such as hot melt adhesives (col. 1, lines 6-9) to a substrate. The process comprises using a glue assembly that has glue nozzles (24) that are closeable that are supplied with glue under pressure (abstract). The pressure is regulated by the conveying speed of the substrate (abstract). The adhesive is fed by a glue pump (52) through a glue line to the nozzles; the glue pressure in the region of the nozzles is regulated by a pressure control valve (50) disposed directly at the glue assembly. The pressure valve is connected by control lines to a common machine unit (42) for the purpose of regulating the valve in accordance with the conveying speed (col. 5, lines 1-20). Estelle teaches the importance of consistent application of adhesive in packaging and plastics industries (col. 1, lines 13-17) because inconsistency can result in unusable and scrap product and increases cost (col. 1, lines 17-20).

Estelle et al. does not disclose that the process is used to dispense glue onto packaging material or that the program comes from the machine control unit by a PC as required by **claim 15**.

Heide discloses a process for applying adhesive to selected portions of successive blanks of series of moving blanks that can be used for packets of cigarettes (abstract). The flow of adhesive to the specific part of the blank is controlled by a valve, which regulates the flow of adhesive from the nozzle, similar to Estelle et al. It would have been obvious to one having ordinary skill in the art at the time the invention was

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made to modify the process of Estelle et al. to be used to dispense adhesive to blanks used in packaging as taught by Heide. One would have been motivated to do so because both disclose processes for dispensing adhesive to a substrate and both references disclose the importance of dispensing adhesive to a substrate used for packaging consistently, as well as the importance of applying the adhesive to the correct areas of the blank.

Estelle et al. does not specifically teach that the glue pressure is adjusted by a PC connected to the system control. However, Estelle et al. teaches that a user interface is provided with the system control. It would have been obvious to one having ordinary skill in the art to have provided input via a PC, in order to input variables into the control system such as size and shape of the substrates, the desired size and thickness of the deposited glue, the characteristics of the particular adhesive used, etc. in order to determine the desired control program for the control unit.

Estelle et al. does not teach the specific type of valve as required by **claim 17**.

However, it is well known in the art that some valves may be actuated by compressed air. It would have been obvious to one having ordinary skill in the art to have used a valve actuatable by compressed air, and thus the control unit would control the compressed air via a control line, with the expectation of successful results since air-actuated valves are known in the art.

Estelle et al. teaches that the metering pump dispenses the volume of fluid supplied to the dispensing valve. Estelle et al. does not teach that different regions of the packaging material have different layer thicknesses as required by **claims 18 and**

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21. However, it would have been obvious to one having ordinary skill in the art that larger or smaller thicknesses may be achieved by controlling the pump and valve based upon the speed of the substrate with the expectation of successful results.

Estelle et al. teaches the use of a conveyor feedback device 34 for sensing the speed of the conveyor. However, Estelle et al. fails to teach the specifics of the feedback device including the type of sensor used e specifics of the feedback device including the type of sensor used as required by **claim 22**. It would have been obvious to one having ordinary skill in the art to have used any known conveyor speed scanning device as conveyor feedback device 34, including the claimed resolver, to sense the speed of the conveyor with the expectation of successful results since Estelle et al. is not limited as to means for providing conveyor speed feedback.

Estelle et al. teaches that the control unit has a program which controls the timing and duration for the opening and closing of the nozzles by regulating the valves (col. 5, lines 22-43) as required by **claim 24**.

Heide discloses that each blank received three patches or strips of films of adhesive. One of these strips can serve to bond a flap at one end of the carton, the other strip bonds a flap at the other end of the carton, and the third strip contains adhesive for the longitudinally extending flap which separately bonds the cover of the carton to a front wall of the latter [0038]. Heide discloses the importance of correctly placing the adhesive to the blanks in order to avoid applying adhesive film to parts of the blank that should not receive adhesive which results in bonding parts of the blank that are nto to be bonded together and failure to bond parts that are to be bonded

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together. It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the process of Estelle et al. to include applying adhesive to specific areas of cigarette pack blanks, such as those claimed, as taught by Heide because Heide discloses the importance of applying adhesive to certain parts of a blank in order to ensure proper bonding to form a carton.

Conclusion

11. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Cachet I. Sellman whose telephone number is 571-272-0691. The examiner can normally be reached on Monday through Friday, 7:00 - 4:30pm.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Timothy Meeks can be reached on 571-272-1423. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Cachet I Sellman
Examiner
Art Unit 1792

cis

/William Phillip Fletcher III/

Primary Examiner